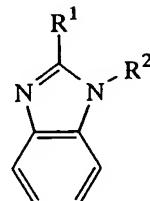


CLAIMS:

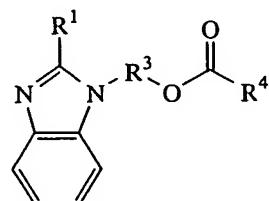
1. A resist composition comprising at least one basic compound having a benzimidazole skeleton and a polar functional group, represented by the general formula (1):



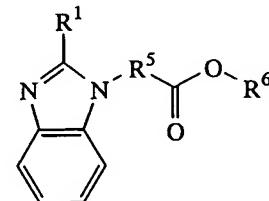
(1)

wherein R^1 is a hydrogen atom, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10 carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;
10 and R^2 is a polar functional group-bearing straight, branched or cyclic alkyl group of 1 to 20 carbon atoms wherein said alkyl group contains as the polar functional group at least one group selected from among ester, acetal and cyano groups, and optionally at least one group selected from among
15 hydroxyl, carbonyl, ether, sulfide and carbonate groups.

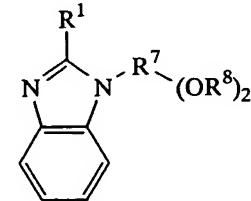
2. A resist composition comprising at least one basic compound having a benzimidazole skeleton and a polar functional group, represented by the general formulae (2) to
20 (7):



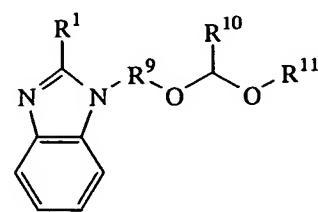
(2)



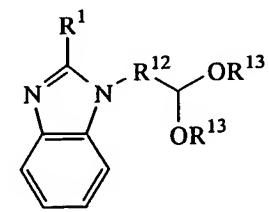
(3)



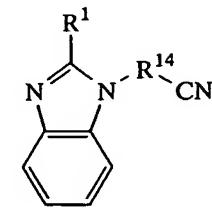
(4)



(5)



(6)



(7)

wherein R¹ is a hydrogen atom, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10 carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;

5 R³, R⁵, R⁹, R¹² and R¹⁴ are each independently a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms;

R⁴ is a hydrogen atom or an alkyl group of 1 to 15 carbon atoms which may contain at least one group selected from among hydroxyl, carbonyl, ester, ether, sulfide, carbonate, cyano and acetal groups;

10 R⁶ is an alkyl group of 1 to 15 carbon atoms which may contain at least one group selected from among hydroxyl, carbonyl, ester, ether, sulfide, carbonate, cyano and acetal groups;

15 R⁷ is a trivalent, straight, branched or cyclic hydrocarbon group of 2 to 10 carbon atoms;

R⁸ is each independently an acyl group of 1 to 10 carbon atoms which may contain at least one ester or ether group, or two R⁸ may bond together to form a cyclic carbonate or cyclic acetal;

20 R¹⁰ is a hydrogen atom or a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms;

R¹¹ is a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms which may contain at least one group selected from among ether, sulfide and acetal groups, or R¹⁰ and R¹¹ may bond together to form a ring;

25 R¹³ is a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, or two R¹³ may bond together to form a ring.

30 3. A positive-working resist composition comprising:

(A) the basic compound of claim 1;

(B) an organic solvent;

35 (C) a base resin having an acid labile group-protected acidic functional group which is alkali-insoluble or substantially alkali-insoluble, but becomes alkali-soluble when the acid labile group is eliminated; and

(D) a photoacid generator.

4. The positive resist composition of claim 3 which further comprises (E) a dissolution inhibitor.

5. A negative-working resist composition comprising:

5 (A) the basic compound of claim 1;

(B) an organic solvent;

(C') a base resin which is alkali-soluble, but becomes substantially alkali-insoluble when crosslinked with a crosslinking agent;

10 (D) a photoacid generator; and

(F) a crosslinking agent which induces crosslinkage under the action of an acid.

6. A patterning process comprising the steps of:

15 (1) applying the positive resist composition of claim 3 onto a substrate;

(2) heat treating the applied resist, then exposing the heat-treated resist through a photomask to high-energy radiation having a wavelength of at most 300 nm or an electron beam; and

20 (3) heat treating the exposed resist, then developing the resist with a liquid developer.

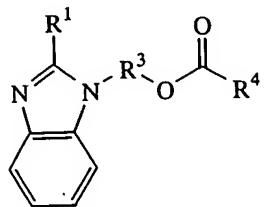
7. A patterning process comprising the steps of:

25 (1) applying the negative resist composition of claim 5 onto a substrate;

(2) heat treating the applied resist, then exposing the heat-treated resist through a photomask to high-energy radiation having a wavelength of at most 300 nm or an electron beam; and

30 (3) heat treating the exposed resist, then developing the resist with a liquid developer.

8. A basic compound represented by the general formula
(2):



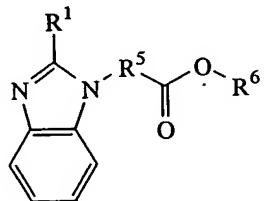
(2)

wherein R¹ is a hydrogen atom, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10 carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;

R³ is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms; and

R⁴ is a hydrogen atom or an alkyl group of 1 to 15 carbon atoms which may contain at least one group selected from among hydroxyl, carbonyl, ester, ether, sulfide, carbonate, cyano and acetal groups.

9. A basic compound represented by the general formula
(3):



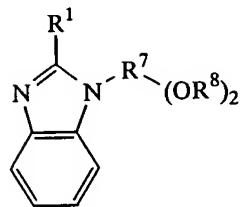
(3)

wherein R¹ is a hydrogen atom, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10 carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;

R⁵ is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms; and

R⁶ is an alkyl group of 1 to 15 carbon atoms which may contain at least one group selected from among hydroxyl, carbonyl, ester, ether, sulfide, carbonate, cyano and acetal groups.

10. A basic compound represented by the general formula
(4):



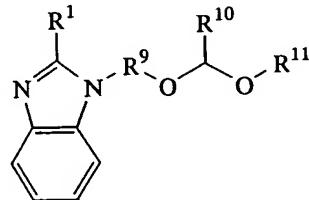
(4)

wherein R¹ is a hydrogen atom, a straight, branched or cyclic
5 alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10
carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;

R⁷ is a trivalent, straight, branched or cyclic
hydrocarbon group of 2 to 10 carbon atoms; and

10 R⁸ is each independently an acyl group of 1 to 10
carbon atoms which may contain at least one ester or ether
group, or two R⁸ may bond together to form a cyclic carbonate
or cyclic acetal.

11. A basic compound represented by the general formula
15 (5):



(5)

wherein R¹ is a hydrogen atom, a straight, branched or cyclic
alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10
carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;

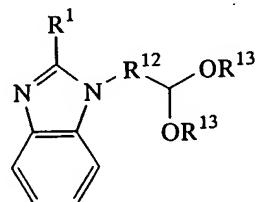
20 R⁹ is a straight, branched or cyclic alkylene group of
1 to 10 carbon atoms;

R¹⁰ is a hydrogen atom or a straight, branched or
cyclic alkyl group of 1 to 10 carbon atoms;

R^{11} is a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms which may contain at least one group selected from among ether, sulfide and acetal groups, or R^{10} and R^{11} may bond together to form a ring.

5

12. A basic compound represented by the general formula (6):



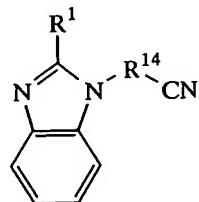
(6)

wherein R^1 is a hydrogen atom, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10 carbon atoms, or an aralkyl group of 7 to 10 carbon atoms;

R^{12} is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms; and

R^{13} is a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, or two R^{13} may bond together to form a ring.

13. A basic compound represented by the general formula (7):



(7)

20

wherein R^1 is a hydrogen atom, a straight, branched or cyclic alkyl group of 1 to 10 carbon atoms, an aryl group of 6 to 10 carbon atoms, or an aralkyl group of 7 to 10 carbon atoms; and

R^{14} is a straight, branched or cyclic alkylene group of 1 to 10 carbon atoms.